CLAIMS

1. A curable composition comprising:

(A) a hydrocarbon compound having a plurality of carbon-carbon double bonds, and

(B) a carbonaceous material.

2. A curable composition according to claim 1, wherein the hydrocarbon compound (A) having a plurality of carbon-carbon double bonds is a polymer having a carbon-carbon double bond in the side chain thereof.

3. A curable composition according to claim 2, wherein the polymer having a carbon-carbon double bond has a carbon-carbon double bond in the side chain thereof, and has a main chain containing 60 mole % or more of saturated monomer units.

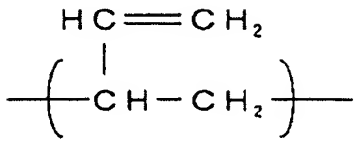
4. A curable composition according to claim 3, wherein the polymer having a carbon-carbon double bond in the side chain thereof, and having a main chain containing 60 mole % or more of saturated monomer units, is a polymer which has been obtained by polymerizing a diene compound as a main monomer.

5. A curable composition according to claim 4, wherein the diene compound is at least one kind selected from the group consisting of: butadiene, pentadiene and isoprene.

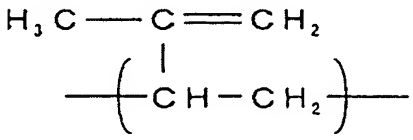
6. A curable composition according to claim 1, wherein the hydrocarbon compound (A) having a plurality of carbon-carbon double bonds is at least one kind selected from the group consisting of: 1,2-polybutadiene and 3,4-polyisoprene.

7. A curable composition according to claim 1, wherein the hydrocarbon compound (A) having a plurality of carbon-carbon double bonds is a polymer containing 60 mole % or more of a monomer unit represented by the following formula (1) or (2):

[Chemical Formula 4]



(1)



(2)

8. A curable composition according to claim 1, wherein the hydrocarbon compound (A) having a plurality of carbon-carbon double bonds is at least one kind selected from the group consisting of the compounds which have been obtained by hydrogenating a portion of the carbon-carbon double bonds in the side chain of 1,2-polybutadiene and 3,4-polyisoprene.

9. A curable composition according to claim 1, wherein the hydrocarbon compound (A) having a plurality of carbon-carbon double bonds is a blend comprising:

at least one kind selected from the group consisting of the compounds which have been obtained by hydrogenating a portion of the carbon-carbon double bonds in the side chain of 1,2-polybutadiene and/or 3,4-polyisoprene; and

at least one kind selected from the group consisting of 1,2-polybutadiene and/or 3,4-polyisoprene.

10. A curable composition according to claim 1, wherein the hydrocarbon compound (A) having a plurality of carbon-carbon double bonds comprises:

5 to 80 mass % of at least one kind selected from the group consisting of the compounds which have been obtained by hydrogenating a portion of the carbon-carbon double bonds in the side chain of 1,2-polybutadiene and/or 3,4-polyisoprene; and

20 to 95 mass % of at least one kind selected from the group consisting of 1,2-polybutadiene and/or 3,4-polyisoprene.

11. A curable composition according to claim 1,

wherein the carbonaceous material (B) is selected from the group consisting of, or a combination of at least two kinds of: natural graphite, artificial graphite, expanded graphite, carbon black, carbon fiber, vapor-phase grown carbon fiber, and carbon nanotube.

12. A curable composition according to claim 1, wherein the carbonaceous material (B) has a powder electric resistivity in the right angle direction is 0.1 Ωcm or less with respect to the applied pressure direction in a state where the carbonaceous material is pressed so as to provide a bulk density of the g carbonaceous material of 1 g/cm^3.

13. A curable composition according to claim 1, wherein the carbonaceous material (B) contains 0.05 mass % to 10 mass % of boron.

14. A curable composition according to claim 1, which further contains a reactive monomer (C).

15. A hydrothermally resistant electroconductive cured product which has been obtained by curing the curable composition according to any of claims 1-14.

16. A hydrothermally resistant electroconductive cured product according to claim 15, which has a Tg of 160°C or more, and a bending strength of 30 MPa or more in accordance with JIS K 6911.

17. A hydrothermally resistant electroconductive cured product according to claim 15 or 16, which has a rate of mass change in the range of +1.5 % to -1.5 %, when a test piece of the cured product having a size of 30 mm × 30 mm × 3 mm is subjected to a hydrothermal resistance test at 180°C, for 168 hours.

18. A hydrothermally resistant molded product which has been obtained by curing the curable composition according to any of claims 1-14;

wherein at least one flow channel for a gas is formed on one side or both sides thereof.

19. A fuel cell separator which has been obtained

by curing and molding the curable composition according to any of claims 1-14;

wherein at least one flow channel for a gas is formed on one side or both sides thereof.

20. A fuel cell separator, which has a Tg of 160°C or more, and a bending strength of 30 MPa or more in accordance with JIS K 6911; and

has a rate of mass change in the range of +1.5 % to -1.5 %, when a test piece of the fuel cell separator having a size of 30 mm × 30 mm × 3 mm is subjected to a hydrothermal resistance test at 180°C, for 168 hours.

21. A process for producing the hydrothermally resistant molded product according to claim 18, wherein the molded product is produced by any of compression molding, transfer molding, injection molding or injection compression molding.

22. A process for producing the fuel cell separator according to claim 19, wherein the fuel cell separator is produced by any of compression molding, transfer molding, injection molding or injection compression molding.

23. A curable composition for the fuel cell separator, which comprises the curable composition according to any of claims 1-14.

24. A partially hydrogenated 1,2-polybutadien, which has been obtained by hydrogenating 3-90 mole % of the carbon-carbon double bonds of the side chain of 1,2-polybutadiene.

25. A partially hydrogenated 3,4-polyisoprene, which has been obtained by hydrogenating 3-90 mole % of the carbon-carbon double bonds of the side chain of 3,4-polyisoprene.